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CIRCULAR

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FROM

THE COMMISSIONER OF AGRICULTURE

OF

THE UNITED STATES,

ON THE PRESENT

AGRICULTURAL, MINERAL,

AND

MANUFACTURING CONDITION AND RESOURCES

OF THE

UNITED STATES.



WASHINGTON:  
GOVERNMENT PRINTING OFFICE.  
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## C I R C U L A R .

DEPARTMENT OF AGRICULTURE,  
Washington, 1862.

SIR : The Congress of the United States, on the 17th of May last, passed an act containing, in part, the following provisions :

"There is hereby established at the seat of government a Department of Agriculture, the general design and duties of which shall be to acquire and diffuse among the people of the United States useful information on subjects of agriculture, in the most general and comprehensive sense of that word, and to procure, and propagate, and distribute among the people new and valuable seeds and plants.

"That there shall be appointed by the President, by and with the advice and consent of the Senate, a 'Commissioner of Agriculture,' who shall be the chief executive officer of the Department of Agriculture.

"That it shall be the duty of the Commissioner of Agriculture to acquire and preserve in his department, all information concerning agriculture which he can obtain by means of books and correspondence, and by practical and scientific experiments, (accurate records of which experiments shall be kept in his office,) by the collection of statistics, and by other appropriate means within his power; to collect, as he may be able, new and valuable seeds and plants, to test by cultivation the value of such of them as may require such tests; to propagate such as may be worthy of propagation, and to distribute them among agriculturists."

In pursuance of this act the Bureau of Agriculture heretofore conducted under the direction of the Commissioner of Patents, has been abolished, and all matters pertaining thereto transferred to the Department of Agriculture established by said act, and the undersigned duly appointed commissioner of the new department.

With the view of carrying into effect the beneficent and important ends contemplated by its organization, I solicit the co-operation of the farmers and friends of agriculture as well as of agricultural societies in every part of the country. Their experience in farming will render their correspondence, with this department exceedingly desirable, and will greatly assist in promoting the ends proposed by Congress in establishing the same.

I am also desirous of securing the comity and friendly co-operation of foreign nations, and their scientific, agricultural, and economical societies, on the basis of a reciprocal exchange of seeds, plants, and animals, as well as of documents, reports, and transactions relating to agriculture and its kindred pursuits.

Without entering, on the present occasion, into any details in respect to the multifarious known products of the flora and fauna of foreign countries, which it is desirable to introduce and naturalize in this country, information and contributions are respectfully solicited on *grape culture* and the manufacture of wines; *silk culture* generally, and the Chinese varieties of the silk-worm that feed upon the leaves of the ailanthus, palma christi, oak leaf, and ash; new varieties of cereals and grasses; fibrous yielding and textile plants; improved breeds of animals, valuable for their fleece, flesh, and other qualities; *fish culture* and valuable varieties of European fish, that do not naturally inhabit our rivers

and lakes; *birds* useful for their eggs, feathers, and flesh; best mode of *protection against predatory birds and insects*, injurious to our crops of cereals, fruit, or timber; new fertilizers, irrigation, drainage, &c., &c.

It is believed that no region of earth so extended enjoys a climate and soil so well adapted to so large a variety of valuable products as that part of the United States lying east of the Rocky mountains. Indian corn, so generally cultivated in every state and territory of the Union, and many tropical fruits and vegetables, ripen in great perfection, and all agricultural and horticultural crops, from the grains, grapes, vegetables, and fruits of the north, to the sugar cane, cotton, tobacco, rice, figs, oranges, &c., of the south, are produced in such perfection, side by side, as they do not attain elsewhere. The Rocky mountain ranges, with their intermediate plains and Pacific valleys, present, among much that is barren, many spots that will compare favorably with some of the most fertile soils of the earth.

We consider agriculture the chief basis of our national wealth, power, and aggrandizement. About two-thirds of our population, in times of peace, are employed either directly or indirectly in farming and the pursuits connected therewith. Our farmers constitute the most influential and patriotic class of the country, among whom are to be found many of our eminent statesmen and most distinguished citizens. As a body they are generally men of good education and intelligence, owning the farms they occupy and cultivate. There is a spirit of emulation among them to keep pace with all new improvements and processes in husbandry, and the cultivation of any new and valuable plant, fruit or flower. This spirit is fostered and promoted by the national as well as State and county agricultural societies, farmers' clubs, and annual exhibitions; and by extensive circulation of agricultural journals throughout the rural districts.

We annex, for your information, a comprehensive tabular statement of the population, agricultural, and mineral products, fiscal resources, &c., of the United States in 1860, as derived from official sources, from which it appears that the ratio of increase of our principal agricultural and mineral products, &c., has more than kept pace with the increase of population. New plants and improved breeds of animals have been successfully introduced in the last ten years. The sorghum, transplanted from China, yielded over *seven million two hundred and fifty-five thousand* gallons of molasses in the year 1860, and the estimated yield for 1862 is about *twelve million gallons*.

To exhibit the vast variety and extent of our national resources would require more space than this circular will admit.

In the last census report it is asserted, with confidence, that our new inventions and improvements in labor-saving machinery and mechanical appliances have been more rapid than those of any other agricultural people; mechanical power has wrought a revolution in nearly every department of our rural industry.

Our government has recommended the practicability of preparing flax and hemp as a substitute for cotton. Results of the most important character to the manufacturing interests of the United States are promised by the perfection of this valuable invention for making from unrotted flax a substance resembling cotton.

The unequalled wealth and rapid development of the coal fields of the United States, as a dynamic element in our industrial progress, afford one of the most striking evidences of our recent advance.

With regard to our mineral products, it may be remarked that in most of the States they are inexhaustible, though but partially developed in either.

Pennsylvania may safely be rated as the richest in coal, iron, nickel, and zinc. In pig iron she makes 62 per cent. of the *quantity* and 58 per cent. of the value of the whole productions of the United States. In bar and rolled iron the production of Pennsylvania, in 1860, exceeded *two hundred and fifty-*

*nine thousand tons.* The production of the recently discovered petroleum or coal oil is estimated at *six thousand barrels per diem*, and the wells appear to be inexhaustible.

Virginia abounds in mineral wealth—iron, coal, salt, copper, and gold—in fact, her resources may be set down as inexhaustible, though, in a great measure, undeveloped. With a soil and climate adapted to every branch of industry, and with her superior water power, she is capable (under the direction of capital and enterprise) of becoming one of the foremost States in the country.

California, so distinguished for the great variety and value of its agricultural productions, is the richest country in gold, silver, and quicksilver perhaps known. In addition to its numerous productive mines and placers, which have yielded over *six hundred million dollars* since 1848, rich and inexhaustible mines of silver have recently been discovered and worked, and also productive mines of quicksilver. Rich copper and coal mines have been struck on a late survey, as well as valuable tin mines. The silver mines of the Territory of Nevada have also yielded large returns. Arizona and New Mexico possess inexhaustible stores of undeveloped mineral wealth. Oregon and Kansas are gold producing States. The returns of gold and silver from Utah are annually on the increase. The Territory of Colorado yields such a large and increasing supply of gold that it is contemplated to establish an assay office or mint at Denver City. The mints and assay offices of the United States have annually received, between 1854 and 1861, considerable amounts of gold from the mines in Virginia, North Carolina, South Carolina, Georgia, Alabama, and Tennessee.

Possessing such abounding and inexhaustible resources, our national government, which enjoys the confidence of twenty-two millions of the population of our free States, has been enabled to raise, equip, and maintain an army of a million of freemen; create a formidable navy of iron-clad steamers for the suppression of the existing rebellion in the cotton States, and to uphold and perpetuate the integrity and supremacy of the FEDERAL UNION. Our capitalists and citizens in the free States have loaned the United States treasury ample funds to carry on the war, which, there is every reason to believe, will soon be brought to a successful termination without the necessity of resorting to foreign loans. A new tariff for raising revenue, with a well devised system of internal duties and taxes, has been provided by Congress for the punctual payment of the interest and the early redemption of the national debt.

In despite of the rebellion, every branch of national industry, enterprise, internal trade and traffic is flourishing in our free States, whilst our foreign commerce, participating in the general prosperity, is receiving an extraordinary impulse from the superabundant crops of cereals, provisions, &c., now coming forward for shipment to Europe.

An act of Congress, of the 20th May, 1862, entitled "An act to secure homesteads to actual settlers on the public domain," among other things provides that any emigrant or foreigner, the head of a family, who has attained the age of 21 years, on making a declaration of his intention to become a citizen of the United States, is authorized to enter a quarter of a section (160 acres) of land, or less, subject to pre-emption, at \$1 25 per acre; or for 80 acres, or less, at \$2 25 per acre, from and after the 1st January, 1863. Emigrants and foreigners who have not been naturalized are exempt from military duty and not allowed to be enlisted in our military service. *One hundred and thirty-four million, two hundred and eighty-five thousand, three hundred and thirty acres* of public lands have been surveyed and are ready for sale.

The President of the United States and heads of departments are prohibited by law from receiving presents from foreign governments. It is therefore respectfully suggested that in future all tokens of amity from foreign States, intended for any of the high functionaries of our government, consist of some valuable plants, shrub, flower, tree, animal, or other interesting object of agri-

cultural utility, to be addressed to the Department of Agriculture, by which such present will be promptly and thankfully acknowledged. It is not from this source alone, however, that I hope this department will be enriched with tokens of amity from foreign countries. I earnestly solicit from all agricultural societies, and from individuals engaged in farming, the transmission of seeds and plants, and of facts and information generally relating to scientific and practical farming, assuring them that their endeavors to promote the common ends which we have in view will be highly appreciated.

The commissioner is authorized to receive, through the mails, free of charge, all communications and other matters pertaining to the business of the department, not exceeding in weight *thirty-two ounces*. They should be addressed to the "Commissioner of the Department of Agriculture, Washington, D. C.," either direct or in care of any United States minister or consul resident abroad, or officer of the United States navy at any foreign port or station, or through any agent of the Smithsonian Institute in Europe,

Seeds in large quantities should be carefully put up in sacks and placed in boxes or barrels, open to ventilation, to prevent fermentation. Slips or cuttings, and tubers, must be packed in air-tight boxes. In all cases it is recommended to write by mail in advance, stating the manner in which the parcels are sent and to whom they are consigned.

Assured that the proposed international exchange is calculated to increase the intercourse and strengthen the friendly relations now so happily subsisting between our respective governments, and give a new impulse to the great agricultural, productive, and material interests of all nations, invoking your cordial and effective co-operation herein, I have the honor to be, very respectfully, your obedient servant,

ISAAC NEWTON,  
*Commissioner.*



*A tabular statement of the Population, value of Real and Personal Property, aggregate Aricultural and Mineral Products, and Fiscal Resources of the United States, chiefly condensed from the Preliminary Report of the Eighth United States Census, latest Treasury and Patent Office Reports, and other official sources.*

## POPULATION, AREA, AND AGRICULTURAL PRODUCTIONS, &c.

|                                         |                |                                           |             |
|-----------------------------------------|----------------|-------------------------------------------|-------------|
| Population, white... ..                 | 26,975,575     | Clover seed.....bushels..                 | 929,010     |
| free colored .....                      | 487,996        | Grass seed.....do....                     | 900,386     |
| slaves.....                             | 3,953,760      | Hemp, dew rotted.....tons...              | 83,247      |
| Total, including Indians.....           | 31,749,281     | Hemp, water rotted.....do....             | 3,943       |
|                                         |                | Hemp, other prepared....do....            | 17,800      |
|                                         |                | Hops.....pounds..                         | 11,010,012  |
| Area of the United States, sq. miles..  | 3,250,000      | Flax.....do....                           | 3,783,979   |
| Aggregate of real and personal prop-    |                | Silk cocoons.....do....                   | 6,562       |
| erty.....dollars..                      | 16,159,616,068 | Maple sugar.....do....                    | 38,863,884  |
| Value of productions of industry.do.... | 1,900,000,000  | Cane sugar.....hhds., 1,000 lbs..         | 302,205     |
| Cash value of farms.....do....          | 6,650,872,507  | Cane molasses.....gallons..               | 16,337,080  |
| Cash value of farming implements and    |                | Sorghum molasses.....do....               | 7,235,025   |
| machinery.....dollars..                 | 247,027,496    | Maple molasses.....do....                 | 1,944,594   |
| Value of live stock.....do....          | 1,107,490,216  | Beeswax and honey.....pounds..            | 26,386,855  |
| Value of lands improved.....do....      | 163,261,389    | Value home-made manufactures.dollars..    | 24,358,222  |
| Value of lands unimproved.....do....    | 246,508,244    | Value of cotton goods produced in the     |             |
| Wheat crop.....bushels..                | 171,183,381    | year ending June 1, 1860.....dollars..    | 115,137,926 |
| Rye crop.....do....                     | 20,976,286     | Value of woollen goods produced..do....   | 68,865,963  |
| Indian corn.....do....                  | 830,451,707    | Leather produced.....do....               | 63,090,751  |
| Oat crop.....do....                     | 172,554,688    | Boots and shoes manufactured in the year  |             |
| Rice.....pounds..                       | 187,140,173    | ending June 1, 1860.....dollars..         | 89,549,900  |
| Tobacco.....do....                      | 429,390,771    | Value of animals slaughtered...do....     | 212,871,653 |
| Ginned cotton.....bales, 400 lbs.       | 5,198,077      | Number of horses.....                     | 7,300,972   |
| Wool.....pounds..                       | 60,511,343     | Number of asses and mules.....            | 1,296,339   |
| Peas and beans.....bushels..            | 15,188,013     | Number of sheep.....                      | 24,823,566  |
| Irish potatoes.....do....               | 110,571,201    | Number of neat cattle.....                | 28,987,346  |
| Sweet potatoes.....do....               | 41,606,302     | Number of swine....                       | 36,023,276  |
| Barley.....do....                       | 15,635,119     | Agricultural implements produced in the   |             |
| Buckwheat.....do....                    | 17,664,914     | United States.....dollars..               | 17,802,514  |
| Value of orchard products....dollars..  | 19,759,361     | Value of sewing machines.....do....       | 5,605,345   |
| Wine.....gallons..                      | 1,860,008      | Number of patents issued for improvements |             |
| Productions of market gardens..dolls..  | 15,541,027     | and inventions in agriculture in 1861...  | 521         |
| Butter.....pounds..                     | 460,509,854    | Newspapers and periodicals, 1860.....     | 4,051       |
| Cheese.....do....                       | 105,875,135    | Value of steam engines and machine-       |             |
| Hay.....tons...                         | 19,129,128     | ry.....dollars..                          | 47,118,550  |

## MINERAL PRODUCTS, &c.

|                                     |            |                                            |            |
|-------------------------------------|------------|--------------------------------------------|------------|
| Gold, from California, in the year  |            | Nickel.....tons...                         | 2,345      |
| 1859.....dollars..                  | 47,744,462 | Nickel, value of.....dollars..             | 28,176     |
| Silver coined at mint.....do....    | 610,011    | Coal, anthracite.....tons...               | 9,389,330  |
| Quicksilver.....flasks..            | 45,023     | Coal, bituminous.....do....                | 5,775,077  |
| Quicksilver, value of.....dollars.. | 2,000,000  | Coal, value of.....dollars..               | 19,365,765 |
| Copper.....tons...                  | 14,432     | Area of coal in United States..sq. miles.  | 200,000    |
| Copper, value of.....dollars..      | 3,316,516  | Coal oil.....barrels..                     | 1,092,450  |
| Pig iron.....tons...                | 884,474    | Coal oil, value of.....dollars..           | 1,092,450  |
| Pig iron, value of.....dollars..    | 19,487,790 | Coal oil, daily flow from wells in Penn-   |            |
| Zinc.....tons...                    | 11,800     | sylvania.....barrels..                     | 5,717      |
| Zinc, value of.....dollars..        | 72,600     | Salt, value of, manufactured in the United |            |
| Lead, value of.....do....           | 977,281    | States, 1860.....dollars..                 | 2,265,302  |

*Statement of the Population, &c.—Continued.*

**FISCAL RESOURCES, NATIONAL DEBT, &c.**

|                                          |             |                                           |                            |
|------------------------------------------|-------------|-------------------------------------------|----------------------------|
| Aggregate value of imports in the year   |             | Total of the national debt December 1,    |                            |
| 1860.....dollars..                       | 334,350,453 | 1861.....dollars..                        | 267,540,035                |
| Aggregate value of exports.....do....    | 248,505,454 | Estimated quantity of coin in the United  |                            |
| Value of imports under the reciprocity   |             | States.....\$                             | 275,000,000 to 300,000,000 |
| treaty.....dollars..                     | 20,019,427  | Number of banks.....                      | 1,642                      |
| Tonnage of the United States...tons...   | 5,539,813   | Bank capital.....dollars..                | 421,890,095                |
| Tonnage, value of.....dollars..          | 221,592,092 | Circulation of banks.....do....           | 207,102,477                |
| Indirect trade.....do....                | 34,224,444  | Spirituos liquors distilled.....gallons.. | 88,002,983                 |
| Fisheries, the products of 1860...do.... | 12,924,092  | Spirituos liquors, value of.....do....    | 24,253,176                 |
| Excess of specie and bullion imports     |             | Malt liquors brewed.....barrels..         | 3,239,545                  |
| over exports.....dollars..               | 16,548,531  | Malt liquors, value of.....dollars..      | 18,001,135                 |
| Revenue from customs and public lands.   | 40,452,784  |                                           |                            |

**RAILROADS, &c.**

|                                            |               |                                             |            |
|--------------------------------------------|---------------|---------------------------------------------|------------|
| Aggregate length of railroads in 1860.ms.  | 31,196½       | For the construction of a railroad, with    |            |
| Cost of construction.....dollars..         | 1,166,422,729 | branches, from the Mississippi river to     |            |
| City passenger railroads.....miles ..      | 402           | the Pacific ocean, about.....miles ..       | 1,500      |
| Cost of construction.....dollars..         | 14,862,840    | In aid of this colossal enterprise Congress |            |
| Length of internal navigation.....miles .. | 30,000        | has made a very liberal donation, by        |            |
| Length of lines of telegraph...do....      | 40,000        | grants of public lands lying on the         |            |
| By an act of Congress of July 1, 1862,     |               | route, and a loan of thirty years six       |            |
| a charter was granted to the Atlantic      |               | per cent. United States bonds, to the       |            |
| and Pacific Railroad Company, with         |               | amount of about.....dollars..               | 60,000,000 |
| a capital of.....dollars..                 | 100,000,000   |                                             |            |

**EDUCATIONAL**

The number of principal colleges and professional schools in the United States, including theological, law and medical, in 1860, was 233. By an act of Congress of July 2, 1862, about 10,000,000 acres of public lands were appropriated for the support of colleges and schools for the benefit of agriculture and the mechanic arts in the several States and Territories of the Union. Five millions of persons received instruction in the educational institutions of the United States in the year ending June, 1860. The system of common school education has been adopted in nearly all the free States.



